

A summary of influenza surveillance indicators reported to MDH for the week ending April 27, 2019

Prepared by the Division of Infectious Disease Surveillance Prevention and Health Promotion Administration Maryland Department of Health

The data presented in this document are provisional and subject to change as additional reports are received.

SUMMARY

During the week ending April 27, 2019 influenza-like illness (ILI) intensity in Maryland was **MINIMAL** and there was **LOCAL** geographic activity. The proportion of outpatient visits for ILI reported by Sentinel Providers and by Maryland Emergency Departments decreased. The proportion of MRITS respondents reporting ILI remained similar to last week. Clinical laboratories reported a decrease in the proportion of specimens testing positive for influenza. Thirty eight specimens tested positive for influenza at the MDH lab. There were 20 influenza-associated hospitalizations. There was one respiratory outbreak reported to MDH.

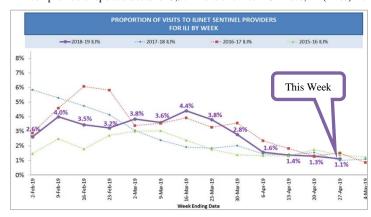
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ILI Intensity Levels						
√ Minimal						
Low						
Moderate						
High						

Inf	luenza Geographic Activity
	No Activity
	Sporadic
	√ Local
	Regional
	Widespread

ILINet Sentinel Providers

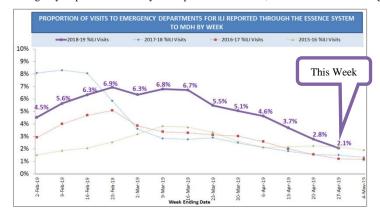
Thirteen providers reported a total of 3,974 visits this week. Of those, 44 (1.1%) were visits for ILI. This is below the Maryland baseline of 2.0%.



ILI Visits To Sentinel Providers By Age Group	This Week Number (%)	Last Week Number (%)	Season Number (%)
Age 0-4	17 (39%)	20 (23%)	1,690 (33%)
Age 5-24	12 (27%)	43 (50%)	2,160 (42%)
Age 25-49	6 (14%)	8 (9%)	653 (13%)
Age 50-64	4 (9%)	8 (9%)	368 (7%)
$Age \ge 65$	5 (11%)	7 (8%)	230 (5%)
Total	44 (100%)	86 (100%)	5,101 (100%)

Visits to Emergency Departments for ILI

Emergency Departments in Maryland reported a total of 56,850 visits this week through the ESSENCE surveillance system. Of those, 1,176 (2.1%) were visits for ILI.



ILI Visits To Emergency Departments By Age Group	This Week Number (%)	Last Week Number (%)	Season Number (%)
Age 0-4	260 (22%)	340 (22%)	12,494 (19%)
Age 5-24	342 (29%)	469 (30%)	19,867 (31%)
Age 25-49	342 (29%)	463 (30%)	19,918 (31%)
Age 50-64	138 (12%)	177 (11%)	8,163 (13%)
Age ≥ 65	94 (8%)	120 (8%)	4,473 (7%)
Total	1,176 (100%)	1,569 (100%)	64,915 (100%)

Neighboring states' influenza information:

Delaware http://dhss.delaware.gov/dph/epi/influenzahome.html

District of Columbia http://doh.dc.gov/service/influenza

 $\underline{\text{http://www.health.pa.gov/My\%20Health/Diseases\%20and\%20Conditions/I-L/Pages/Influenza.aspx\#.V-LtaPkrJD8}$

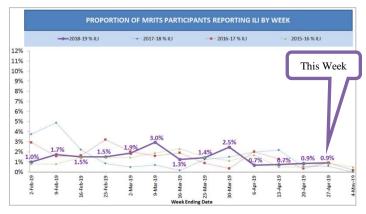
Virginia http://www.vdh.virginia.gov/epidemiology/influenza-flu-in-virginia/influenza-surveillance/

West Virginia http://dhhr.wv.gov/oeps/disease/flu/Pages/fluSurveillance.aspx

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Community-based Influenza Surveillance (MRITS)

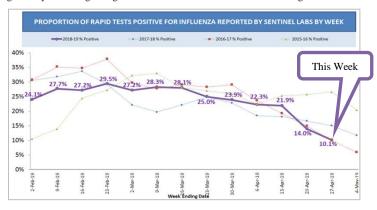
MRITS is the Maryland Resident Influenza Tracking System, a weekly survey for influenza-like illness (ILI). A total of 553 residents responded to the MRITS survey this week. Of those, 5 (0.9%) reported having ILI and missing greater than 18 cumulative days of regular daily activities.



MRITS Respondents Reporting ILI By Age Group	This Week Number (%)	Last Week Number (%)	Season Number (%)
Age 0-4	0 (0%)	1 (20%)	14 (6%)
Age 5-24	1 (20%)	1 (20%)	60 (27%)
Age 25-49	2 (40%)	1 (20%)	56 (25%)
Age 50-64	2 (40%)	1 (20%)	54 (24%)
Age ≥ 65	0 (0%)	1 (20%)	42 (19%)
Total	5 (100%)	5 (100%)	226 (100%)

Clinical Laboratory Influenza Testing

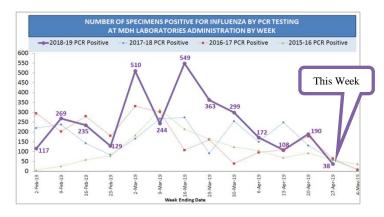
There were 58 clinical laboratories reporting 2,514 influenza diagnostic tests, mostly rapid influenza diagnostic tests (RIDTs). Of those, 255 (10.1%) were positive for influenza. Of those testing positive, 141 (55%) were influenza Type A and 114 (45%) were influenza Type B. The reliability of RIDTs depends largely on the conditions under which they are used. False-positive (and true-negative) results are more likely to occur when the disease prevalence in the community is low, which is generally at the beginning and end of the influenza season and during the summer.



Т	Ra	apio	tive d Fl y T		<u>.</u>		Thi lum						ast ıml				Season Number (%)
T	уре	eΑ						141	(5	5%])		31	8 (65%	6)	22,989 (88%)
T	уре	B						114	(4	5%])		16	9 (:	35%	6)	3,043 (12%)
T	ota	l					25	55 (100	0%])	4	487	(10	00%	6)	26,032 (100%)
554 15%	537 14%	750 11%	954 12%	1,314	2,04 6%	5 2,121 7%	2,523 6%	2,156 8%	2,460 8%	2,433 8%	1,85	9 1,694 13%	1,341 19%	1,046 24%	487 35%	255 45%	■ Percent Type B ■ Percent Type A
85%	86%	89%	88%	91%	94%	93%	94%	92%	92%	92%	899	87%	81%	76%	65%	55%	
5-Jan-19	12-dan-19	19-Jan-19	26-Jan-19	2-Feb-19	Weeke	oding Date	23-Feb-19	2-Mar-19	9-War-19	16-Mar-19	23-Mar-19	30-Mar-19	6-Apr-19	13-Apr-19	20-Apr-19	27-Apr-19	

State Laboratories Administration Influenza Testing

The MDH Laboratories Administration performed a total of 48 PCR tests for influenza and 38 (79.2%) were positive for influenza. Of those testing positive, 8 (21%) were positive for Type A (H1), and 30 (79%) were positive for Type A (H3). PCR testing is more reliable than RIDT. The MDH testing identifies subtypes of influenza A and lineages of influenza B, information that is not available from the RIDT results. The table below summarizes results by type, subtype, and lineage.

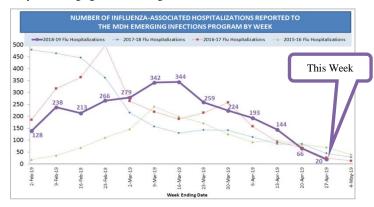


Positive PCR Tests by Type (Subtype)	This Week Number (%)	Last Week Number (%)	Season Number (%)
Type A (H1)	8 (21%)	53 (28%)	2,343 (62%)
Type A (H3)	30 (79%)	121 (64%)	1,316 (35%)
Type B (Victoria)	0 (0%)	9 (5%)	83 (2%)
Type B (Yamagata)	0 (0%)	7 (4%)	49 (1%)
Dual Type A (H1/H3)	0 (0%)	0 (0%)	9 (<1%)
Total	38 (100%)	190 (100%)	3,800 (100%)

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Influenza-associated Hospitalizations

A total of 20 influenza-associated hospitalizations were reported this week. (A person with an overnight hospital stay along with a positive influenza test of any kind, e.g., RIDT or PCR, is considered an "influenza-associated hospitalization" for purposes of influenza surveillance.) This surveillance is conducted as a component of the Maryland Emerging Infections Program.



Influenza- Associated Hospitalizations by Age Group	This Week Number (%)	Last Week Number (%)	Season Number (%)
Age 0-4	4 (20%)	3 (5%)	246 (7%)
Age 5-17	3 (15%)	7 (11%)	175 (5%)
Age 18-24	0 (0%)	4 (6%)	78 (2%)
Age 25-49	4 (20%)	8 (12%)	561 (17%)
Age 50-64	3 (15%)	19 (29%)	857 (26%)
Age ≥ 65	6 (30%)	25 (38%)	1,375 (42%)
Total	20 (100%)	66 (100%)	3,292 (100%)

Influenza-associated Deaths

An influenza-associated death is one with a clinically compatible illness and a positive influenza test of any kind.

Pediatric Deaths: The total number of pediatric (< 18 years of age) deaths reported this influenza season is 2. Influenza-associated pediatric mortality is a reportable condition in Maryland. Pediatric deaths are tracked without regard to hospitalization.

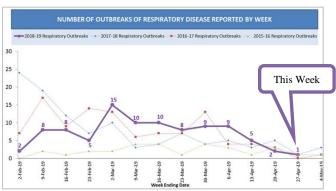
Adult Deaths Among Hospitalized Patients: A cumulative season total of 56 deaths have been reported among adults admitted to Maryland hospitals. Influenza-associated adult mortality is *not* a reportable condition in Maryland. However, surveillance for mortality in hospitalized adults is conducted as a component of the Maryland Emerging Infections Program.



Influenza-Associated Deaths	Cumulative Season Total
Pediatric Deaths (Age < 18)	2
Adult Deaths (in hospitalized cases)	56

Outbreaks of Respiratory Disease

There was one respiratory outbreak reported to MDH this week. (Disease outbreaks of any kind are reportable in Maryland. Respiratory outbreaks may be reclassified once a causative agent is detected, e.g., from ILI to influenza.)



Respiratory Outbreaks by Type	This Week Number (%)	Last Week Number (%)	Season Number (%)
Influenza	1 (100%)	1 (50%)	84 (68%)
Influenza-like Illness	0 (0%)	0 (0%)	20 (16%)
Pneumonia	0 (0%)	1 (50%)	20 (16%)
Other Respiratory	0 (0%)	0 (0%)	0 (0%)
Total	1 (100%)	2 (100%)	124 (100%)

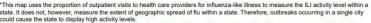
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National Influenza Surveillance (CDC)

Influenza activity continues to decrease in the United States. While influenza A(H1N1)pdm09 viruses predominated from October to mid-February, influenza A(H3N2) viruses have been more commonly identified since late February. Small numbers of influenza B viruses also have been reported.

- Viral Surveillance: The percentage of respiratory specimens testing positive for influenza viruses in clinical laboratories decreased. During the most recent three weeks, influenza A(H3) viruses were reported more frequently than influenza A(H1N1)pdm09 viruses nationally, and in all 10 HHS Regions.
- Influenza-like Illness Surveillance: The proportion of outpatient visits for influenza-like illness (ILI) decreased to 1.8%, which is below the national baseline of 2.2%. All regions reported ILI below their region-specific baseline level.
- Geographic Spread of Influenza: The geographic spread of influenza in three states was reported as widespread; Puerto Rico and seven states reported regional activity; 18 states reported local activity; the District of Columbia, the U.S. Virgin Islands and 22 states reported sporadic activity; and Guam did
- 0 Influenza-associated Hospitalizations: A cumulative rate of 64.7 laboratory-confirmed influenza-associated hospitalizations per 100,000 population was reported. The highest hospitalization rate is among adults 65 years and older (216.6 hospitalizations per 100,000 population).
- Pneumonia and Influenza Mortality: The proportion of deaths attributed to pneumonia and influenza (P&I) was below the system-specific epidemic 0 threshold in the National Center for Health Statistics (NCHS) Mortality Surveillance System.
- Influenza-associated Pediatric Deaths: Five influenza-associated pediatric deaths were reported to CDC during week 17. \circ
- Outpatient Illness Surveillance: Nationwide during week 17, 1.8% of patient visits reported through the U.S. Outpatient Influenza-like Illness Surveillance 0 Network (ILINet) were due to influenza-like illness (ILI). This percentage is below the national baseline of 2.2%. (ILI is defined as fever (temperature of 100°F [37.8°C] or greater) and cough and/or sore throat.)
- On a regional level, the percentage of outpatient visits for ILI ranged from 0.9% to 2.8% during week 17. All regions reported a percentage of outpatient visits for ILI below their region-specific baseline.

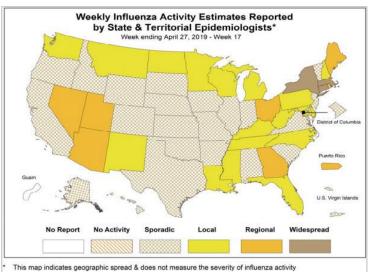




*This map uses the proportion of outpatient visits to health care providers for influenza-like illness to measure the ILI activity level within state. It does not, however, measure the extent of geographic spread of flu within a state. Therefore, outbreaks occurring in a single city could cause the state to display high activity levels.

Data collected in ILINet may disproportionally represent certain populations within a state, and therefore, may not accurately depict the full picture of influenza activity for the whole state.

Data displayed in this map are based on data collected in ILINet, whereas the State and Territorial flu activity map is based on reports from state and territorial epidemiologists. The data presented in this map is preliminary and may change as more data are received. Differences in the data presented here by CDC and independently by some state health departments likely represent differing levels of data completeness with data presented by the state likely being the more complete.



Where to get an influenza vaccination

Interested in getting a flu vaccine for the 2018-19 influenza season? Go to https://phpa.health.maryland.gov/influenza/Pages/getvaccinated.aspx and click on your county/city of residence. You will be redirected to your local health department website for local information on where to get your flu vaccine.